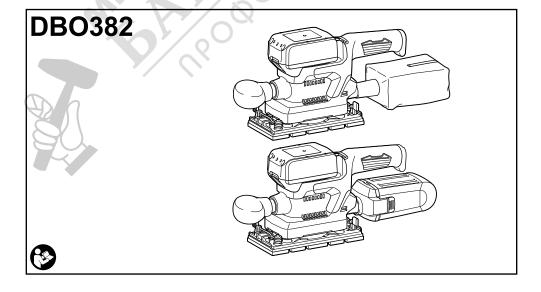
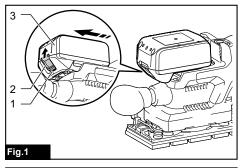
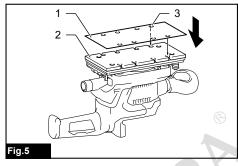
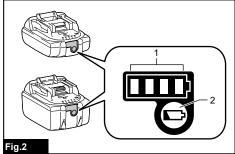


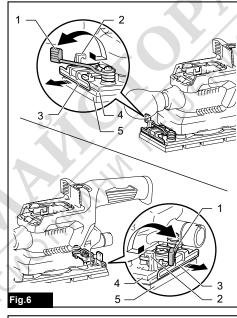
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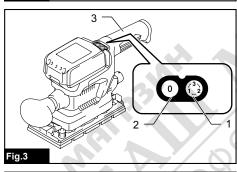


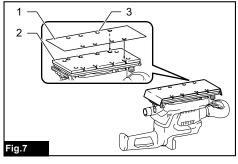


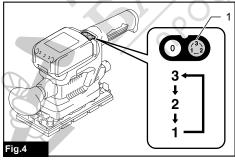


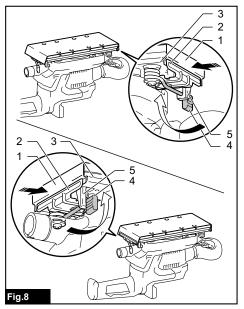


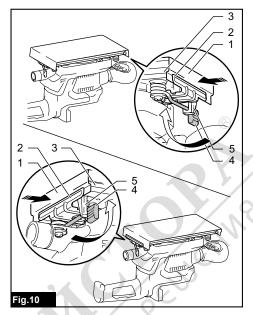


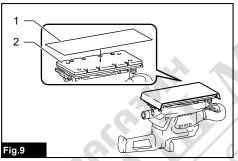


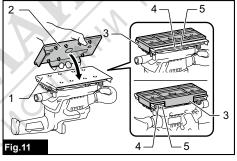




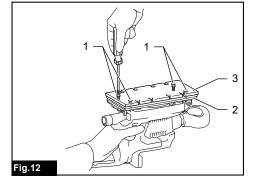


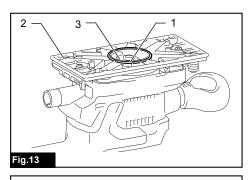


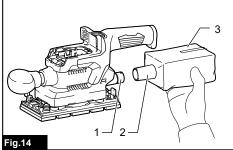


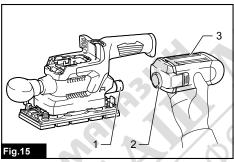


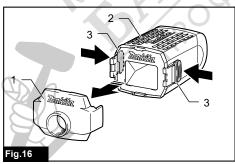


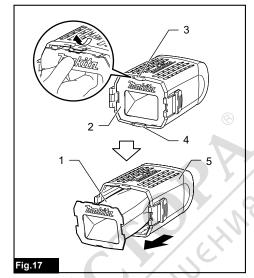


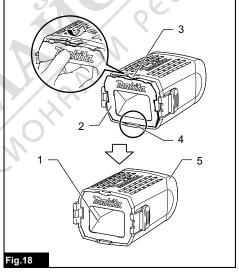


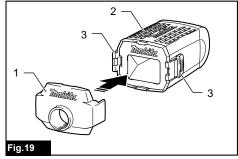


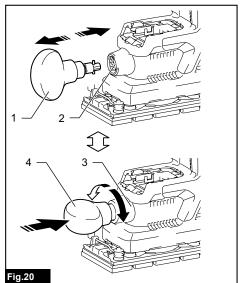


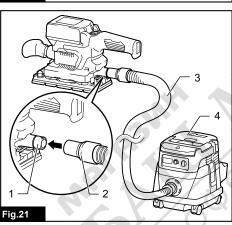


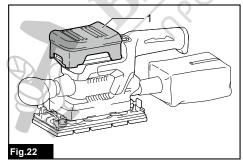


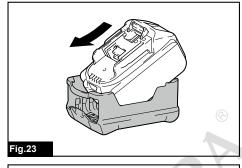


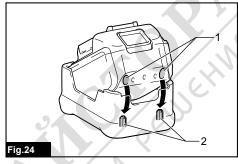


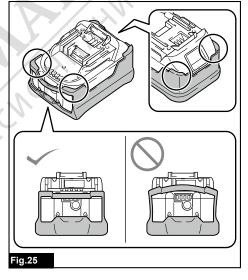


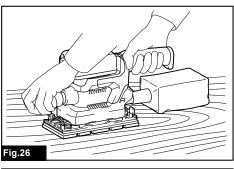


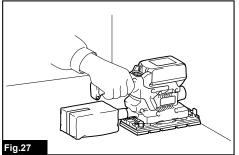












# **SPECIFICATIONS**

Model:		DBO382	
Pad size		93 mm x 185 mm	
Abrasive paper size		93 mm x 228 mm	
Orbits per minute	High	12,000 min <sup>-1</sup>	
	Medium	8,000 min <sup>-1</sup>	
	Low	4,000 min <sup>-1</sup>	
Overall length (with front grip)		336 mm	
Rated voltage		D.C. 18 V	
Net weight		1.9 - 2.2 kg	

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications and battery cartridge may differ from country to country.
- The weight may differ depending on the attachment(s), including the battery cartridge. The lightest and heaviest combinations, according to EPTA-Procedure 01/2014, are shown in the table.

## Applicable battery cartridge and charger

Battery cartridge	BL1815N / BL1820B / BL1830B / BL1840B / BL1850B / BL1860B	
Charger	DC18RC / DC18RD / DC18RE / DC18SD / DC18SE / DC18SF / DC18SH / DC18WC	

 Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

**AWARNING:** Only use the battery cartridges and chargers listed above. Use of any other battery cartridges and chargers may cause injury and/or fire.

#### Intended use

The tool is intended for the sanding of large surface of wood, plastic and metal materials as well as painted surfaces.

#### Noise

The typical A-weighted noise level determined according to EN62841-2-4:

Sound pressure level  $(L_{pA})$ : 72 dB(A) Uncertainty (K): 3 dB(A)

The noise level under working may exceed 80 dB (A).

**NOTE:** The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

NOTE: The declared noise emission value(s) may also be used in a preliminary assessment of exposure.

AWARNING: Wear ear protection.

**AWARNING:** The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.

**AWARNING:** Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

#### Vibration

The vibration total value (tri-axial vector sum) determined according to EN62841-2-4: Work mode: sanding metal plate Vibration emission ( $a_b$ ): 3.6 m/s<sup>2</sup>

Uncertainty (K): 1.5 m/s<sup>2</sup>

**NOTE:** The declared vibration total value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

**NOTE:** The declared vibration total value(s) may also be used in a preliminary assessment of exposure.

AWARNING: The vibration emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.

AWARNING: Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

## **EC Declaration of Conformity**

#### For European countries only

The EC declaration of conformity is included as Annex A to this instruction manual.

# **SAFETY WARNINGS**

#### General power tool safety warnings

AWARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

# Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## Sander safety warnings

- Always use safety glasses or goggles.
   Ordinary eye or sun glasses are NOT safety glasses.
- 2. Hold the tool firmly.
- Do not leave the tool running. Operate the tool only when hand-held.
- This tool has not been waterproofed, so do not use water on the workpiece surface.

   Wentilate your work area adequately when your
- Ventilate your work area adequately when you perform sanding operations.
- Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
- Use of this tool to sand some products, paints and wood could expose user to dust containing hazardous substances. Use appropriate respiratory protection.
- Be sure that there are no cracks or breakage on the pad before use. Cracks or breakage may cause a personal injury.

 Watch your footing and maintain your balance with the tool. Make sure there is no one below when working in high locations.

#### SAVE THESE INSTRUCTIONS.

AWARNING: DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

# Important safety instructions for battery cartridge

- Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
- Do not disassemble or tamper with the battery cartridge. It may result in a fire, excessive heat, or explosion.
- If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
- If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.
- 5. Do not short the battery cartridge:
  - (1) Do not touch the terminals with any conductive material.
  - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
  - (3) Do not expose battery cartridge to water or rain.

A battery short can cause a large current flow, overheating, possible burns and even a breakdown.

- Do not store and use the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).
- Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.
- Do not nail, cut, crush, throw, drop the battery cartridge, or hit against a hard object to the battery cartridge. Such conduct may result in a fire, excessive heat, or explosion.
- Do not use a damaged battery.
- The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.

For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations.

Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.

- When disposing the battery cartridge, remove it from the tool and dispose of it in a safe place. Follow your local regulations relating to disposal of battery.
- Use the batteries only with the products specified by Makita. Installing the batteries to non-compliant products may result in a fire, excessive heat, explosion, or leak of electrolyte.
- 13. If the tool is not used for a long period of time, the battery must be removed from the tool.
- During and after use, the battery cartridge may take on heat which can cause burns or low temperature burns. Pay attention to the handling of hot battery cartridges.
- Do not touch the terminal of the tool immediately after use as it may get hot enough to cause burns.
- 16. Do not allow chips, dust, or soil stuck into the terminals, holes, and grooves of the battery cartridge. It may cause heating, catching fire, burst and malfunction of the tool or battery cartridge, resulting in burns or personal injury.
- 17. Unless the tool supports the use near high-voltage electrical power lines, do not use the battery cartridge near high-voltage electrical power lines. It may result in a malfunction or breakdown of the tool or battery cartridge.
- 18. Keep the battery away from children.

#### SAVE THESE INSTRUCTIONS.

▲ CAUTION: Only use genuine Makita batteries. Use of non-genuine Makita batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Makita warranty for the Makita tool and charger.

# Tips for maintaining maximum battery life

- Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.
- Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.
- Charge the battery cartridge with room temperature at 10 °C 40 °C (50 °F 104 °F). Let a hot battery cartridge cool down before charging it.
- 4. When not using the battery cartridge, remove it from the tool or the charger.
- Charge the battery cartridge if you do not use it for a long period (more than six months).

# **FUNCTIONAL DESCRIPTION**

**ACAUTION:** Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

## Installing or removing battery cartridge

ACAUTION: Always switch off the tool before installing or removing of the battery cartridge.

**ACAUTION:** Hold the tool and the battery cartridge firmly when installing or removing battery cartridge. Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.

► Fig.1: 1. Red indicator 2. Button 3. Battery cartridge

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator as shown in the figure, it is not locked completely.

**CAUTION:** Always install the battery cartridge fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

ACAUTION: Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

# Indicating the remaining battery capacity

Only for battery cartridges with the indicator

▶ Fig.2: 1. Indicator lamps 2. Check button

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for a few seconds.

Indicator lamps			Remaining
Lighted	Off	Blinking	capacity
			75% to 100%
			50% to 75%
			25% to 50%
			0% to 25%
			Charge the battery.
	<b>1</b> • •		The battery may have malfunctioned.

**NOTE:** Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

**NOTE:** The first (far left) indicator lamp will blink when the battery protection system works.

## Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

## Overload protection

When the tool or battery is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops without any indication. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

## Overheat protection

When the tool or battery is overheated, the tool stops automatically. In this case, let the tool and battery cool before turning the tool on again.

## Overdischarge protection

When the battery capacity is not enough, the tool stops automatically. In this case, remove the battery from the tool and charge the battery.

#### Switch action

ACAUTION: Avoid turning the tool on while it is placed on the workpiece or on your workbench. It may cause personal injury or damage.

# Turning the tool on and off

Press the power/speed select button on the top of the main handle to start the tool. The tool starts to run at its highest orbital speed.

Press the stop button to pause or cease operation.

- ► Fig.3: 1. Power/speed select button 2. Stop button
  - 3. Main handle

# Changing the tool speed

The orbital speed can be changed in three modes, that is, high, medium and low depending on the application and workload.

Press the power/speed select button to switch speed mode.

▶ Fig.4: 1. Power/speed select button

#### Speed settings table

Speed level	Orbital per minute
3 (High)	12,000 min <sup>-1</sup> (/min)
2 (Medium)	8,000 min <sup>-1</sup> (/min)
1 (Low)	4,000 min <sup>-1</sup> (/min)

**NOTICE:** If the tool is operated continuously at low speeds for a long time, the motor will get overloaded, resulting in tool malfunction.

NOTICE: Select an appropriate speed range for your sanding operations to avoid overheating and melting the workpiece. Sanding at high orbital speed may heat workpiece and melt it at the point of contact.

#### **Electronic function**

The tool is equipped with the electronic function for easy operation.

## Constant speed control

This function serves a constant orbital speed to obtain fine finish

# **ASSEMBLY**

ACAUTION: Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

# Installing and removing abrasive paper

ACAUTION: Always make sure that a sheet of abrasive paper is installed securely before use. The paper may otherwise be loosened, removed easily and subject to slippage, resulting in uneven sanding operation.

# Using hook-and-loop abrasive paper

**ACAUTION:** Make sure to install a hook-and-loop pad correctly and securely. A loose attachment will run out of balance and cause an excessive vibration resulting in loss of control.

**▲**CAUTION: Be sure that a hook-and-loop pad and abrasive paper are aligned and securely attached.

**ACAUTION:** Only use hook-and-loop abrasive papers. Never use pressure-sensitive abrasive papers.

- 1. Remove all dirt and foreign matter from the hookand-loop pad.
- 2. Attach a sheet of the abrasive paper to the pad, aligning the dust-suction holes in the paper with those in the pad.
- ► Fig.5: 1. Abrasive paper 2. Pad 3. Dust-suction holes
- To remove the abrasive paper, peel it off from the edge.

## Using abrasive paper with dustsuction hole

#### Optional accessory

- 1. Push and hold down the clamp lever on either front or rear end of the pad, and slide it away from the stopper so the clamp is released from its fastened position.
- Pull the clamp lever outwards as far as possible to create a space between the clamp and side wall of the sanding base in which one end of abrasive paper can be inserted.
- ► Fig.6: 1. Clamp lever 2. Stopper 3. Clamp 4. Sanding base 5. Pad
- 3. Place a sheet of abrasive paper over the pad, aligning the dust-suction holes in the paper with those in the pad.
- ▶ Fig.7: 1. Abrasive paper 2. Pad 3. Dust-suction hole
- **4.** Slip one end of the abrasive paper into the space between the clamp and sanding base.
- 5. Set the clamp lever back in a locked position so the end of abrasive paper is clamped securely.
- **6.** Release the clamp on the other end, and have the other end of abrasive paper ready to be clamped.
- 7. Maintain a proper tension on abrasive paper, and then set the clamp lever on the other end in a locked position.
- ► Fig.8: 1. Abrasive paper 2. Clamp 3. Sanding base 4. Clamp lever 5. Stopper
- To remove the abrasive paper, release the clamps on both ends and take the paper off the pad.

## Using abrasive paper without dustsuction hole

#### Commercially-bought

- 1. Cut a sheet of abrasive paper down to an appropriate size.
- ► Fig.9: 1. Abrasive paper 2. Pad
- 2. Push and hold down the clamp lever on either front or rear end of the pad, and slide it away from the stopper so the clamp is released from its fastened position.
- 3. Pull the clamp lever outwards as far as possible to create a space between the clamp and side wall of the sanding base in which one end of abrasive paper can be inserted.
- **4.** Slip one end of the abrasive paper into the space between the clamp and sanding base.
- Reposition the abrasive paper so it is finely overlaid on the pad surface.
- 6. Set the clamp lever back in a locked position to clamp the end of abrasive paper securely.
- 7. Release the clamp on the other end, and have the other end of abrasive paper ready to be clamped.
- 8. Maintain a proper tension on abrasive paper, and then set the clamp lever on the other end in a locked position.
- ► Fig.10: 1. Abrasive paper 2. Clamp 3. Sanding base
  - 4. Clamp lever 5. Stopper

- **9.** Cover the abrasive paper with the punch plate with its positioning stoppers adjacent to the corner well fit onto two of the side edges of the pad and sanding base.
- ► Fig.11: 1. Abrasive paper 2. Punch plate 3. Positioning stoppers 4. Pad 5. Sanding base
- **10.** Push the punch plate over the abrasive paper to make dust-suction holes.
- **11.** To remove the abrasive paper, release the clamps on both ends and take the paper off the pad.

## Replacing pad

#### Optional accessory

- 1. Loosen and remove the four screws securing the pad to the sanding base.
- **2.** Replace the standard-equipped pad with an optional pad.
- 3. Re-tighten the screws firmly to secure the pad.
- ▶ Fig.12: 1. Screws 2. Sanding base 3. Pad

ACAUTION: The O ring may come out of the sanding base while replacing the pad. Set the O ring back in the circular grooves around the center of the base before installing the optional pad.

► Fig.13: 1. O ring 2. Sanding base 3. Circular grooves

#### Installing and removing dust bag

#### Optional accessory

Attach the dust bag over the tapered dust spout at the back end of the motor housing. Put the dust inlet of the bag onto the dust spout as far as it will go to avoid it from coming off during operation.

► Fig.14: 1. Dust spout 2. Dust inlet 3. Dust bag

**NOTE:** Make sure to attach the dust bag with its zipper slider facing downwards.

**NOTE:** To ensure optimal dust collecting, empty the dust bag when it becomes filled to approximately half of its capacity.

Remove the dust bag from the tool and pull the fastener out. Then gently shake or tap the dust bag to empty.

## Installing and removing dust box

#### Optional accessory

Attach the dust box over the tapered dust spout at the back end of the motor housing. Put the dust nozzle onto the dust spout as far as it will go to avoid it from coming off during operation.

► Fig.15: 1. Dust spout 2. Dust nozzle 3. Dust box

**NOTE:** To ensure optimal dust collecting, empty the dust box when it becomes filled to approximately half of its capacity.

- 1. Remove the dust box from the tool.
- Detach the dust nozzle from the box while pressing and holding the locking latches on both sides of the box.
- 3. Gently shake or tap the dust box to empty.

## Replacing filter

**NOTICE:** Be aware to align the logos on all the dust box, filter and dust nozzle in a consistent orientation when reassembling components.

- Remove the dust box from the tool.
- 2. Detach the dust nozzle from the box while pressing and holding the locking latches on both sides of the box.
- ▶ Fig.16: 1. Dust nozzle 2. Dust box 3. Locking latch
- Hold the inner top edge of the cardboard opening, and pull it off downwards to disengage the outer top edge of the cardboard opening from the upper hooking tab on the lip of the dust box.
- 4. Take the filter out of the dust box while pulling the outer bottom edge of the cardboard opening free from the lower hooking tab.
- ► Fig.17: 1. Filter 2. Cardboard opening 3. Upper hooking tab 4. Lower hooking tab 5. Dust box
- 5. Replace a filter by engaging the bottom edge of the cardboard opening in the lower hooking tab and push the top edge inwards until it clips into the upper hooking tab.
- ► Fig.18: 1. Filter 2. Cardboard opening 3. Upper hooking tab 4. Lower hooking tab 5. Dust box
- **6.** Snap the dust nozzle into place while pressing and holding the locking latches on both sides of the dust
- ► Fig.19: 1. Dust nozzle 2. Dust box 3. Locking latch

# Installing and removing front grip

#### Installation

Install the front grip to the tool before operation, if they are separately included in the package.

Insert the end of the front grip into the slot on the motor housing, aligning the outlines of the grip end with those of the slot.

Push and hold the front grip firmly towards the housing and rotate it 90 degrees with its gripping surface facing upwards.

► Fig.20: 1. Front grip 2. Slot 3. Motor housing

4. Gripping surface

ACAUTION: After assembly, pull the front grip to check if it is securely attached together.

NOTICE: Make sure to push the front grip fully into the slot end and keep it positioned where it is while rotating the front grip. Failure to do so may cause damage to the tool.

#### Uninstallation

By removing the detachable front grip, sanding operation in tight, confined and hard-to-reach areas can be performed effectively.

Push and hold the front grip firmly towards the motor housing and rotate it 90 degrees to either the left or right. Then pull it apart from the tool.

## Connecting with vacuum cleaner

#### Optional accessory

When you wish to perform clean sanding operation, connect a Makita vacuum cleaner to your tool. Use either an optional horse 28 mm or a combination of front cuffs 22 and hose provided with the cleaner to establish a connection.

► Fig.21: 1. Dust spout 2. Front cuffs 3. Hose

## Vacuum cleaner

# Installing and removing battery protector

#### Optional accessory

The battery protector is intended for protecting the workpiece and battery.

► Fig.22: 1. Battery protector

ACAUTION: Never hand hold a battery protector when carrying the tool from one area to another or when holding the tool while not in use.

**NOTE:** The battery protector cannot be used with the thin batteries, such as BL1815N and BL1820B.

To install the battery protector, follow the steps below.

- 1. Insert the battery into the battery protector as shown in the figure.
- ▶ Fig.23
- 2. Push the battery into the battery protector so that the bosses in the battery protector fit the holes on the battery.
- ► Fig.24: 1. Hole 2. Boss
- **3.** Make sure that the four corners are firmly hooked with the battery protector.
- ▶ Fig.25

To remove the battery protector, unhook the four corners, and slowly pull out the battery from the battery protector so that the bosses comes out of the holes on the battery. While pulling the battery, hold the battery and battery protector firmly.

# **OPERATION**

# Sanding operation

**★**CAUTION: Never run the tool without the abrasive paper. You may seriously damage the pad.

**ACAUTION:** Never force the tool. Excessive pressure may decrease the sanding efficiency, damage the abrasive paper and/or shorten tool life.

# Sanding open areas

- 1. Hold the tool firmly with your both hands, one hand on the handle and the other on the front grip.
- 2. Turn the tool on and wait until it attains full speed.
- 3. Gently place the tool on the workpiece surface.
- **4.** Keep the entire pad level and even with the surface and apply slight pressure on the tool.
- ▶ Fig.26

## Sanding confined areas

- 1. Detach the front grip from the tool.
- 2. Hold the handle with one hand.
- 3. Turn the tool on and wait until it attains full speed.
- 4. Gently place the tool on the workpiece surface.
- **5.** Keep the entire pad level and even with the surface and apply slight pressure on the tool.
- **6.** Move the tool along curves, wall faces and in other confined spaces, sanding with the front and corner edges of the pad as you need.
- ▶ Fig.27

# **MAINTENANCE**

**ACAUTION:** Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.

**NOTICE:** Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

#### After use

Wipe off the tool using a dry cloth or cloth slightly moistened with soapy water at regular intervals.

# **OPTIONAL ACCESSORIES**

ACAUTION: These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- Abrasive paper (with pre-punched holes)
- Hook-and-loop type of abrasive paper
  - Punch plate
  - Backing pad (For use with hook-and-loop type of abrasive paper)
- Backing pad (For use with conventional type of abrasive paper)
- Dust bag
- Dust box
- Filter
- Hose
- Battery protector
- Makita genuine battery and charger

**NOTE:** Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

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